
WEB-BASED INFORMATION SYSTEM FOR THE RECAPITULATION OF THE ELECTION OF THE CHAIRMAN OF RW 011 PADANG SARAI PERMAI HOUSING

Harry Setya Hadi¹, Endang Dwi Gustina²
xmoensen@gmail.com¹, gustinaendangdwi@gmail.com²
Manajemen informatika, Universitas Ekasakti Padang

Article Information

Accepted : 10-01-2024
Reviewed: 05-02-2024
Approved: 20-02-2024

Keywords

*System, Website,
Recapitulation of the
Election of the Head of
the RW*

Abstrak

Recapitulation is an activity of summarizing data so that it becomes more useful in form, arrangement, nature or content with the help of hands or even equipment and following a series of formula steps, or a certain pattern. can facilitate the community in voting anywhere and anytime so that it can also save costs in the Election of RW Heads. making applications, analysis, namely gathering complete requirements, then analyzing and defining the requirements that must be met by the program to be built, design, namely producing an overall system and determining the flow of the software, implementation, namely where the entire design is converted into program codes, testing, namely merging the modules that have been made, verification, namely testing whether the system is in accordance with what has been approved, maintenance, namely the process of repairing the system according to what has been approved.

A. Introduction

Technology is developing very rapidly and is almost evenly distributed in all human life. In the past, computer technology was an innovation from its predecessors to create computer technology. And now computer technology has spread evenly in almost all areas of life. It is not impossible that in the future, computers will become a basic need for all levels of life.

The problem currently occurring in the election of RW chairman is the lack of effectiveness and efficiency in the election by directly coming to the election location with many obstacles occurring such as consuming quite a lot of money, the lack of people in carrying out the election because of the things and obligations that the community undertakes in the election by Therefore, in the current era, it is better to use an online RW chairman election system because it can make it easier for people to vote anywhere and at any time so it can also save costs in selecting the RW chairman.

B. Research Methods

Activity Diagram Login Admin

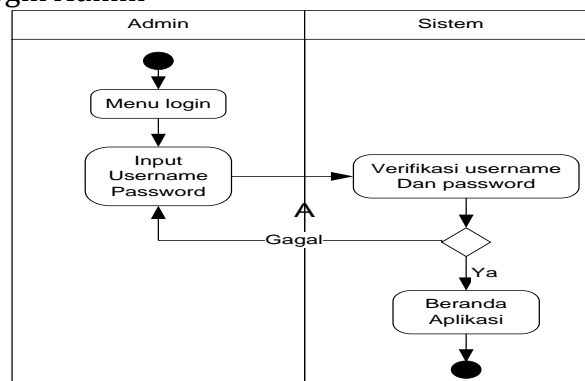


Figure 1 Activity Diagram Login Admin

Figure 1 explains the activities carried out by the Admin. Then the system will display a login page. If the username and password entered do not match, the system will reject it and if it is correct the next page will be displayed by the system.

Sequence Diagram

Sequence diagrams describe interactions between objects in and around the system in the form of messages over time. Making sequence diagrams aims to make application design easier and more focused.

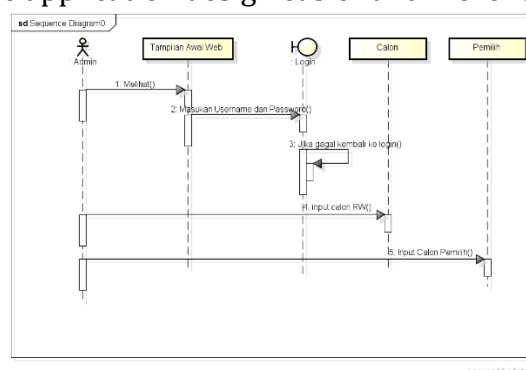


Figure 2 Sequence Diagram Admin

In figure 2 the Admin Sequence Diagram shows the login process by

filling in the user name and password, if appropriate then it will be in the admin home application menu

Sequence Diagram User

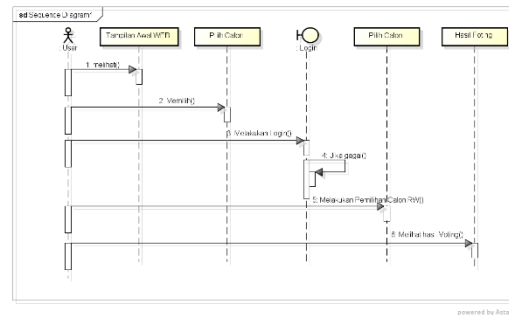


Figure 3 Sequence Diagram User

In Figure 3, the Admin Sequence Diagram shows the login process by filling in the user name and password, if appropriate, it will appear on the user's home application menu and select RW candidates.

Class Diagram

Class Diagram is a diagram that describes the system structure in terms of defining the classes that will be created to build the system.

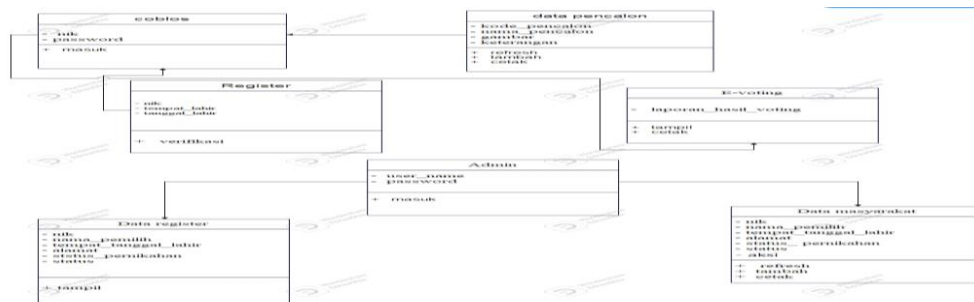


Figure 4 Class Diagram Selection of RW Candidates

Database Design

A design file or database is a collection of computer data that is integrated, organized and stored in a way that makes retrieval easy. The following is a database of data processing for the recipe information system that the author proposes.

Database Structure

Admin Table Design

Tabel 1 Admin Table Structure Design

No	Nama Field	Tipe	Character Length
1	User	varchar	16
2	Password	varchar	16
3	Level	varchar	16

Admin table structure design is the design of the tables that will be used in the database. The tables contained in the database used in this application system are the admin table design consisting of level, username and password in xampp

Selector Table Design

Tabel 2 Selector Table Structure Design

No	Name Field	Tipe	Character Length
1	id_pemilih	Int	11
2	Ktp	varchar	16
3	nama_pemilih	varchar	64
4	alamat	varchar	250
5	tempat	char	50
6	Ttl	varchar	150
7	Status_p	varchar	50

Designing the selector table structure is designing the tables that will be used in the database. The tables contained in the database are used in the application system in xampp

Design of Candidate Table

Table 3 Design of Candidate Table Structure

No	Name Field	Tipe	Character Length
1	id_pencalon	int	11
2	Kode_pencalon	varchar	16
3	Nama_pencalon	varchar	64
4	gambar	varchar	255
5	keterangan	varchar	255

Designing the candidate table structure is designing the tables that will be used in the database. The tables contained in the database are used in the application system in xampp

Select Table Design

Table 4 Select Table Structure Design

No	Name Field	Tipe	Character Length
1	id	int	11
2	Id_pencalon	int	16
3	Id_pemilih	int	16
4	Tanda_terima	varchar	10

Select table structure design is the design of the tables that will be used in the database. The tables contained in the database are used in the application system in xampp.

a. **ERD (*Entity Relationship Diagram*)**

ERD (Entity Relationship Diagram) or entity relationship diagram is a diagram that is used to design a database and shows the relations or connections between objects or entities and their attributes in detail. By using ERD, the database system that is being created can be described in a more structured and neat appearance.

Database design used in the database structure of the Web-based Recapitulation Information System for Election of RW Chairperson for Padang Sarai Permai Housing.

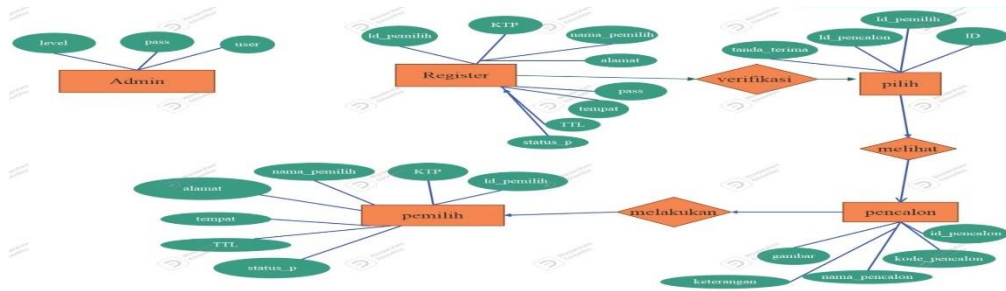


Figure 5 ERD (Entity Relationship Diagram)

Input and Output Display Design

Input design is a design designed to receive input from system users.

Login Input Design

Designed for application users who are interested in using this application program, they must first enter their username and password. If you enter the password incorrectly, the application will not open there but.

ADMIN

Username

Password

signin

Figure 6. Login Display Design

Admin Home Design

GAMBAR

E-Voting	Pencalon	Pemilih
----------	----------	---------

Figure 7 Admin Display Design

The admin home page has several menus, namely the E-Voting, Candidates and Voters menu.

Candidate Admin Menu

Pencarian	Tambah	Cetak		
Kode	Gambar	Nama	Keterangan	Total

Figure 8 Candidate Admin Menu

Selector Table Design

Pencarian	Tambah	Cetak		
No	NIK	Nama	Alamat	Status

Figure 9. Voter Display Design

The admin can import voter data and delete voter data.

C. Results and Discussion

The implementation of data base is carried out using the SQL language, where the DBMS (Database Management System) used is MySQL:

1. Database Tabel admin

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	user	varchar(16)	latin1_swedish_ci		No	None			Change Drop More
2	pass	varchar(16)	latin1_swedish_ci		No	None			Change Drop More
3	level	varchar(16)	latin1_swedish_ci		No	None			Change Drop More

Figure 10 Admin table view

Where the image above is the admin rights table which consists of 3 (fields) and 8 records. This admin table functions for admins who will log in.

2. Database Tabel Pemilih

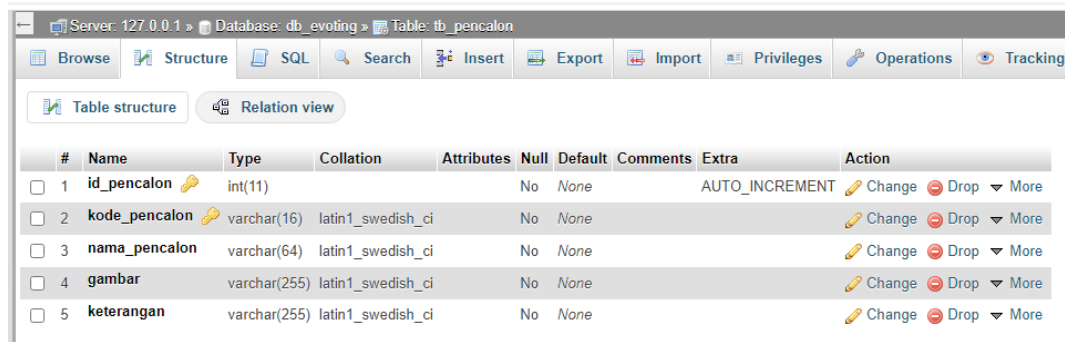
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id_pemilih	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	ktp	varchar(16)	latin1_swedish_ci		No	None			Change Drop More
3	nama_pemilih	varchar(64)	latin1_swedish_ci		No	None			Change Drop More
4	alamat	varchar(250)	latin1_swedish_ci		No	None			Change Drop More
5	tempat	char(50)	latin1_swedish_ci		No	None			Change Drop More
6	ttl	varchar(150)	latin1_swedish_ci		No	None			Change Drop More
7	status_p	varchar(50)	latin1_swedish_ci		No	None			Change Drop More

Figure 11 Selector Table Display

Where the image above is a selector table consisting of 7 (fields) and 8 records.

This table functions to view voter data that has been input by the admin.

3. Database Tabel Pencalon



Server: 127.0.0.1 » Database: db_evoting » Table: tb_pencalon

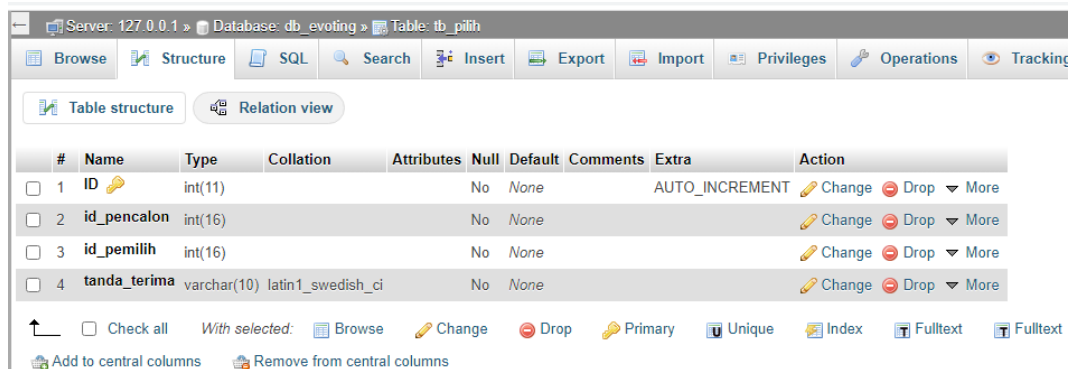
Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id_pencalon	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	kode_pencalon	varchar(16)	latin1_swedish_ci		No	None			Change Drop More
3	nama_pencalon	varchar(64)	latin1_swedish_ci		No	None			Change Drop More
4	gambar	varchar(255)	latin1_swedish_ci		No	None			Change Drop More
5	keterangan	varchar(255)	latin1_swedish_ci		No	None			Change Drop More

Figure 12 Candidate Table Display

Where the image above is a Candidate table which consists of 5 (fields) and 8 records. This table functions to view candidate data that has been created by the admin who will be selected by the public or voters in the system.

4. Database Tabel Pilih



Server: 127.0.0.1 » Database: db_evoting » Table: tb_pilih

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	ID	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	id_pencalon	int(16)			No	None			Change Drop More
3	id_pemilih	int(16)			No	None			Change Drop More
4	tanda_terima	varchar(10)	latin1_swedish_ci		No	None			Change Drop More

Check all With selected: Browse Change Drop Primary Unique Index Fulltext Fulltext

Add to central columns Remove from central columns

Figure 13 Select Table View

Where the image above is a select table consisting of 4 (fields) and 8 records. This table serves to see the people who voted and find out the results of the votes cast by voters.

5. Database Tabel Register



Server: 127.0.0.1 » Database: db_evoting » Table: tb_regis

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id_pemilih	int(11)			No	None			Change Drop More
2	ktp	varchar(16)	latin1_swedish_ci		No	None			Change Drop More
3	nama_pemilih	varchar(64)	latin1_swedish_ci		No	None			Change Drop More
4	alamat	varchar(250)	latin1_swedish_ci		No	None			Change Drop More
5	pass	varchar(16)	latin1_swedish_ci		No	None			Change Drop More
6	tempat	char(50)	latin1_swedish_ci		No	None			Change Drop More
7	tgl	varchar(150)	latin1_swedish_ci		No	None			Change Drop More
8	status_p	varchar(50)	latin1_swedish_ci		No	None			Change Drop More

Figure 14 Register display

Where the image above is a register table consisting of 7 (fields) and 8 records. This table functions to store data on people who have registered into the system.

Implementation of User Interfaces (Display)

1. RW candidate selection web page

The page used for selecting RW candidates is as follows:



Figure 15 Display of the home page for the RW Candidate Selection Web page

2. Admin Home Page

On the Admin home sidebar page



Figure 16 Admin Home Page Display

3. Nominee Page

On the sidebar page, the admin manages Candidates. To fill in the data, add candidates as shown in the image below;


Pencalon

[Google Translate](#)

Kode	Gambar	Nama Pencalon	Keterangan	Aksi
01		ROLIH RAHMAT	"MENUJU PERUBAHAN" BARENG-BARENG SEIRING BERSAMA	 
02		MULYADI	MENDENGARKAN, MENAMPUNG ASPIRASI WARGA	 
03		SYAHRONI	JUJUR DAN AMANAH	 

Figure 17 Add candidate display

4. Master data Admin Home Page
Admin adds and deletes voter data



PEMILIHAN KETUA RW 011 PERUMAHAN PADANG SARAI PERMAI

 E-Voting  Pencalon  Data Master



PEMILIHAN KETUA RW 011 PERUMAHAN PADANG SARAI PERMAI

 Password  Logout

Pemilih

No	NIK	Nama Pemilih	Tempat Tanggal Lahir	Alamat	Status Pernikahan	Status	Aksi
1	1371115103720008	legiem	padang	13	kawin		 

Figure 18 Admin view of community master data
Admin receives data on voters who register



PEMILIHAN KETUA RW 011 PERUMAHAN PADANG SARAI PERMAI

 E-Voting  Pencalon  Data Master



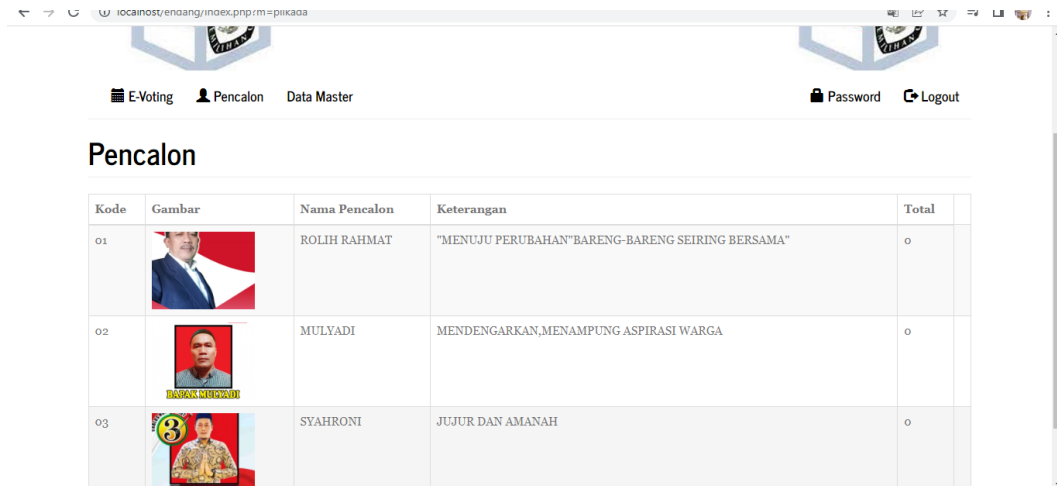
PEMILIHAN KETUA RW 011 PERUMAHAN PADANG SARAI PERMAI

 Password  Logout




Pemilih

No	NIK	Nama Pemilih	Tempat Tanggal Lahir	Alamat	Status Pernikahan	Status
1	1371115103720008	legiem	padang	13	kawin	

Figure 19 Admin view of Register data
Admin Home Page E-voting Results Report
Admin makes a report on the overall results of e-voting

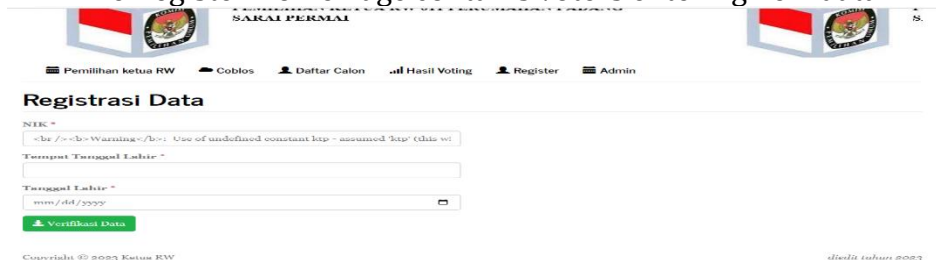


The screenshot shows the 'Pencalon' (Candidates) section of an e-voting system. It features a table with columns for Kode, Gambar, Nama Pencalon, Keterangan, and Total. There are three candidates listed: ROLIH RAHMAT, MULYADI, and SYAHRONI. Each candidate has a small profile picture and a description of their platform or values.

Kode	Gambar	Nama Pencalon	Keterangan	Total
01		ROLIH RAHMAT	"MENUJU PERUBAHAN" BARENG-BARENG SEIRING BERSAMA	0
02		MULYADI	MENDENGARKAN, MENAMPUNG ASPIRASI WARGA	0
03		SYAHRONI	JUJUR DAN AMANAH	0

**Figure 20 E-voting Admin Display
Register Home Page**

The Register Home Page contains voters entering new data

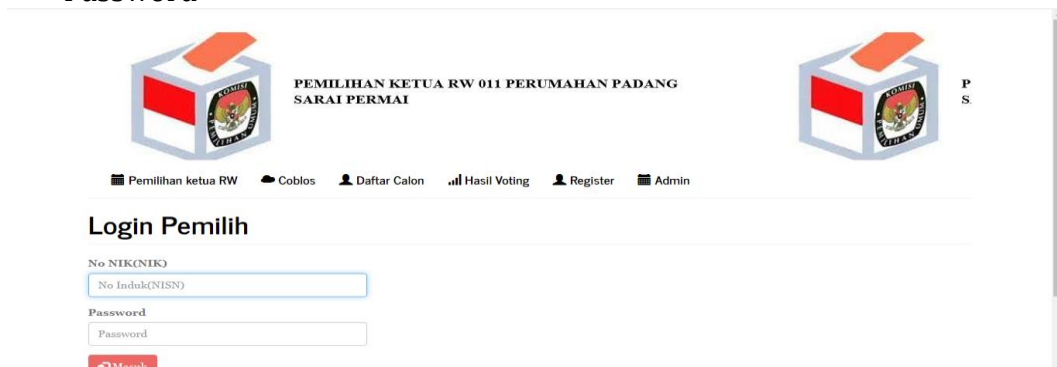


The screenshot shows the 'Registrasi Data' (Data Registration) form. It includes fields for NIK (National Identity Number), Tempat Tanggal Lahir (Place and Date of Birth), and a 'Verifikasi Data' (Verify Data) button. The form is titled 'PEMILIHAN KETUA RW 011 PERUMAHAN PADANG SARAI PERMAI'.

Figure 21 Display of the Register Page

Voting Page

On the voting page, voters enter the specified Nick Number and Password



The screenshot shows the 'Login Pemilih' (Voter Login) form. It includes fields for No NIK(NIK) (Nick Number) and Password, and a 'Masuk' (Login) button. The form is titled 'PEMILIHAN KETUA RW 011 PERUMAHAN PADANG SARAI PERMAI'.

Figure 22 views of the voting page

5. RW Chairman Election Page

On the RW chairman election page you can select the RW chairman

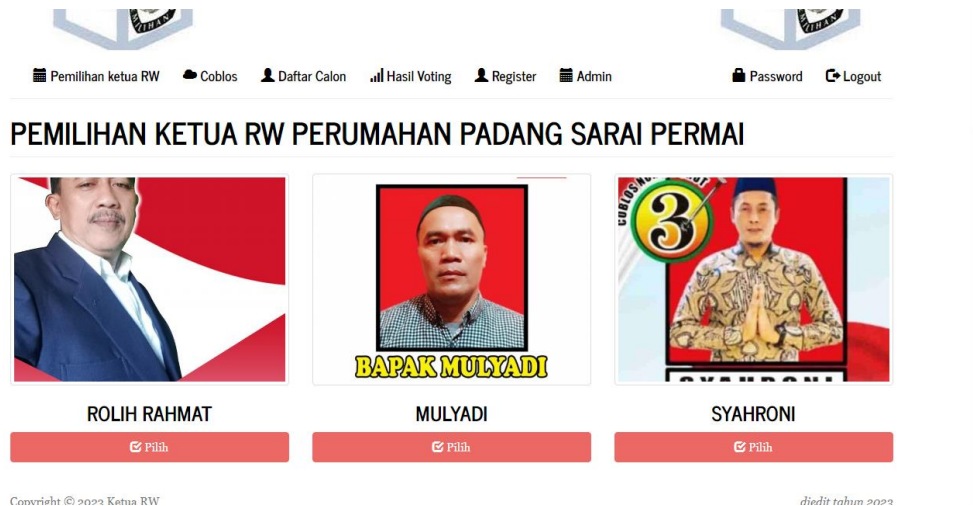


Figure 23 Display of the RW Chair Election Page

6. RW Chairman Election Receipt Page

The RW chairman's receipt page can be seen in Figure 24



Figure 24 Display of the RW Chair Election Receipt Page

D. Conclusion

With this new system, the following conclusions can be drawn:

1. The procedure for selecting a RW chairman in the current system is relevant and effective for the community in electing a RW chairman anytime and anywhere within a predetermined time so as to save costs.
2. With a web application that has been designed in an attractive way, web visitors can see directly the election results and election percentage graphs
3. Can provide accurate, up to date information regarding the election of RW chairman
4. Data storage does not require a large space, but data uses a medium that can store and connect files effectively and efficiently, namely a database.

E. Acknowledgments

Based on the analysis of the conclusions above, there are several suggestions that can be taken into consideration as follows:

1. In order for the designed system to work effectively and efficiently, skilled personnel are needed to operate the applications created.
2. In implementing a computerized system, it should be supported by adequate equipment, both in terms of humans (brainware) and in terms of equipment (Software and Hardware).
3. Try the system that was designed, if it turns out that the system designed is more efficient and effective, it is recommended to elect the RW chairman.

F. References

- [1]. Abdul Mubarak (2019), "Rancang Bangun Aplikasi Web Sekolah Menggunakan Uml (Unified Modeling Language) Dan Bahasa Pemrograman Php (Php Hypertext Preprocessor) Berorientasi Objek". JIKO (Jurnal Informatika dan Komputer) Ternate Vol. 02 No. 1
- [2]. Abdur Rochman (2019), "Perancangan Sistem Informasi Data Pasien di Klinik Aulia Medika Pasar kemis" Jurnal sisfotek global, Vol. VI, No. 3, Hal. 21-25
- [3]. Agustini, Wahyu Joni Kurniawan (2019), "Sistem E-Learning Do'a dan Iqro' dalam Peningkatan Proses Pembelajaran pada TK Amal Ikhlas" Jurnal Mahasiswa Aplikasi Teknologi Komputer dan Informasi, Vol. 1 No. 3
- [4]. Ahmedika Azkiya (2018), "Aplikasi Penyewaan Perlengkapan Pernikahan Pada Qinoy Salon Berbasis Web"
- [5]. Dony Waluya Firdaus (2018), "Perancangan Sistem Informasi Akuntansi Koperasi dan UMKM Berbasis Technopreneur
- [6]. Erwin Budi Setiawan (2019), "Perancangan Strategis Sistem Informasi It Telkom Untuk Menuju World Class University". Jurnal Ilmiah Komputer dan Informatika (KOMPUTA) Vol. 2, No. 2, Hal. 27-34
- [7]. Hamdi Agustin (2018), "Sistem Informasi Manajemen Menurut Prespektif Islam" Jurnal Tabarru' : Islamic Banking and Finance Volume 1 Nomor
- [8]. M. Yusuf (2018)." Analisis dan Perancangan Sistem Informasi Promosi Berbasis Web Pada Asosiasi UMKM Muaro Jambi". Jurnal Manajemen Sistem Informasi Vol 3. No.
- [9]. Eko Prasetyo and Harry Setya Hadi, "PERANCANGAN SISTEM INFORMASI MAMI CATERING ONLINE", JENTIK, vol. 1, no. 1, pp. 10-22, Apr. 2023.
- [10]. Sri Mulyati (2018), "Rancang Bangun Sistem Informasi Penyewaan Wedding Organizer Berbasis Web Dengan Php Dan Mysql Pada Kiki Rias". Jurnal Teknik: Universitas Muhammadiyah Tangerang, Vol. 7, No. 2
- [11]. Untung Rahardja (2019), "Penerapan Teknologi Open Journal System Sebagai Media Publikasi Jurnal Ilmiah Elektronik Bagi Perguruan Tinggi Non It Di Tangerang" Journal Vol.5 No.2, Hal. 4-10
- [12]. Wanda Kurniawan (2018) ," Rancangan Sistem Forum Diskusi Online Untuk Program Studi Sistem Informasi Antara Dosen Dan Mahasiswa". Jurnal Rekayasa Informasi, Vol. 5, No. 2